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Teachers' application of the competency-based approach in the teaching and learning process: Evidence from middle schools in Addis Ababa

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Abstract

The study examined the extent to which teachers apply a competency-based approach in the teaching and learning process in Addis Ababa middle schools. It focused on the practice of a student-centered approach, application of authentic learning, and authentic assessment. To carry out the study, a concurrent embedded mixed methods design was employed. Quantitative data were collected from 768 respondents (384 teachers and 384 students), while qualitative data were collected from four teachers. Questionnaires and classroom observations were used as data collection tools. The quantitative data were analyzed using descriptive statistics (mean) and inferential statistics (t-test). The data collected through observations were analyzed thematically. The findings revealed a wide gap between what teachers believe they are doing and what is actually being done in their classrooms regarding each of these three dimensions. Although teachers claimed that they were using student-centered approaches, authentic learning, and authentic assessment methods, in practice, there was minimal engagement with these methods. The study recommended that the Addis Ababa Education Bureau encourage teachers to adopt a more student-centered approach that promotes personalized learning, emphasizes the integration of real-world examples and scenarios to make learning more authentic and applicable, and implements consistent authentic assessments.

Keywords: Authentic assessment, Authentic learning, Competency-based approach, Connecting lessons to the real world, Competency, Student-centered.

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Contribution of this paper to the literature

This study contributes to the existing literature by examining the gap between teachers' reported practices and actual implementation of competency-based approaches. The major contribution of the article lies in revealing that student-centered approaches, authentic learning, and authentic assessment were rarely implemented. This study documents the critical need for targeted professional development and support.

1. Introduction

In the 21st century, the emergence of the knowledge economy has significantly influenced various aspects of society, particularly education (Shal, 2016). The integration of technology into daily life has transformed how individuals perform daily tasks (Masseni, 2014). More importantly, Cantrell, Kool, and Kouwenhoven (2010) emphasized that the contribution of human capital in terms of know-how, skills, competencies, and expertise is of great importance to a knowledge-based economy. As a result, students today require different competencies than those needed in earlier generations. In doing so, schools are being called upon to equip their students with the skills and competencies required to navigate the challenges they are currently facing and will encounter in the future (Shal, 2016).

In response to these changing demands, education systems around the world are moving toward competency-based education, which focuses on helping students build key skills for success in the modern world. The educational experiences of students need to equip them with the requirements of modern life (Friedman, 2007, as cited in Abowitz and Roberts (2007). According to several studies, in the modern complex economy, competency-based education is becoming the most successful method as it focuses on the necessary skills that people should have to achieve success in the contemporary world (Brower & Specht-Boardman, 2022; Curry & Docherty, 2017; Mulenga & Kabombwe, 2019).

This is a powerful call for a shift in teachers' classroom practice, from merely teaching subject content to helping students learn how to learn. Many curricula now offer competencies that indicate certain types of pedagogy, which can be an alternative starting point for learning design (UNESCO, 2015). Likewise, Bernie and Charles (2009) and Woods (2007) suggest a change in the teaching and learning process. In other words, teaching should move away from rote memorization toward competencies that are essential for life today. A competency-based approach can facilitate this transformation. The aim of the competency-based approach is to develop students' competencies by acquiring new ones and strengthening existing ones to enhance their overall capability (Barman & Konwar, 2011).

Recognizing the importance of competency-based education, the Ethiopian government developed the general education curriculum framework in 2020 for the second time. The framework reflects a curriculum vision that aims at nurturing all-rounded, ethical, self-reliant citizens armed with 21st-century skills to make them productive and competitive regionally and globally (MoE, 2020). To realize this ambitious vision, it is essential to develop and implement a curriculum that translates this vision into practice. Accordingly, Ethiopia introduced a competency-based curriculum for general education. The major aim of this curriculum framework developed for the country's general education system is to produce citizens who are innovative, inventive, productive, self-directed, responsible, and active contributors to national development (MoE, 2020). Equipping learners with core competencies such as learning to learn, critical thinking and problem solving, creative thinking and innovation, communication, collaboration, leadership and decision-making, digital literacy, and cultural identity and global citizenship can enhance their overall educational experience (MoE, 2020). This curriculum has been fully implemented across all primary and middle schools in Addis Ababa since 2021.

Moreover, the Ethiopian general education curriculum framework perceives education as a holistic experience that prepares individuals for the future, promotes personal growth and empowerment, and fosters social justice, inclusivity, and responsible citizenship (MoE, 2020). Notably, many authors agree that the successful implementation of any curriculum heavily depends on the practices of the teachers. For instance, Fullan (2016) and Hadisaputra, Haryadi, Zuhri, Thohri, and Zulkifli (2024) state that effective implementation of innovative educational approaches relies heavily on teachers' classroom practices, as they are the primary implementers of the curriculum. The active involvement of teachers has a powerful impact on classroom practices (Wubbena & Guerra, 2017), which in turn impacts students' learning outcomes (Hargreaves, 2000; Ono & Ferreira, 2010). Specifically, the instructional practices, assessment practices, and support systems of teachers directly impact the achievement of the objectives of a curriculum (Hargreaves, 2000). Thus, changes in teachers' classroom practices are essential for successful curriculum innovation (Fullan, 2016).

Although Ethiopia introduced a competency-based curriculum in general education for the first time in 2010 to address the limitations of previous curricula, it has not fully achieved its intended objectives. A study conducted in 2018 to assess the implementation status of the competency-based curriculum revealed deficiencies, including the absence of interactive, learner-centered methodologies and inadequate use of continuous assessment (MoE, 2020). The Ethiopian government introduced a revised competency-based curriculum to its general education system in 2020 to address these issues. This study aims to examine whether teachers apply a competency-based approach in teaching and learning at middle schools in Addis Ababa. Specifically, it assesses (1) the extent to which teachers use student-centered approaches to help students master competencies, (2) the extent to which teachers use authentic learning to relate learning to real-world applications, and (3) the extent to which teachers use authentic assessment to check mastery of competencies.

2. Literature Review

2.1. Competency-Based Education Framework

Competency-based education (CBE) represents a significant shift from traditional education systems, emphasizing mastery of competencies and a student-centered approach. Unlike conventional systems that focus on content mastery and rigid pacing, CBE prioritizes understanding and performance, requiring educators to adapt their teaching, learning, and assessment practices (Posner, 1995, as cited in Barman and Konwar (2011)). This pedagogical approach supports informal and authentic assessment methods, integrating real-life applications into the learning

process (Le, Wolfe, & Steinberg, 2014). According to Krause et al. (2015), these features signify a paradigm shift towards a holistic, learner-centered perspective, allowing students to progress through an individualized learning pathway once mastery is demonstrated, without adhering to a strict schedule (Spady, 1994). Furthermore, competency-based learning aligns with the demands of 21st-century education by fostering higher-order skills such as critical thinking, creativity, collaboration, and problem-solving (Cantrell et al., 2010).

According to the proponents of CBE, the concept facilitates personalized and differentiated learning since it allows learning to be adjusted to the individual progress and needs of students. In competency-based learning, educators establish clear goals, identify learning needs through diagnostic tests, create interactive teaching materials, and track progress in order to offer specific feedback and guidance (Sornson, 2022). The method places emphasis on logical learning sequences, facilitated by both authentic and ongoing assessment, to guarantee that the learner attains the intended results (MoE, 2020). Teachers' professional competence and classroom practice are significant in the successful implementation of CBE. By addressing the needs, interests, and strengths of each student, teachers should design their learning experiences to engage students in the learning process, which allows students to actively participate in learning and think more deeply and critically (Levine & Patrick, 2019), and be responsive and adaptive to the various needs of students they have (Bernard, Borokhovski, Schmid, Waddington, & Pickup, 2019).

2.2. Student-Centered Approach

The student-centered model is a paradigm shift in education as it places the learners at the heart of the learning and teaching processes. It is shifting away from traditional teacher-centered approaches towards promoting independent learning, aligning teaching with the interests of the learners, and meeting the heterogeneous needs of the learners. Knowledge, in this view, is comprehended as actively constructed in the course of experiential learning, reflective practice, and social interaction (Dewey, 1938; Vygotsky, 1978). Early advocates like John Dewey argue that education has to connect with the students' real-life experience directly to make learning meaningful (Dewey, 1938). Similarly, Maria Montessori emphasized the importance of independent self-discovery by setting up well-ordered environments so that students could become independent and self-motivated (Montessori, 1912). Student-centered approach can take the form of active learning, cooperative learning, or problem-based learning, all aimed at fostering better understanding and independent learning (Din & Wheatley, 2007).

Whereas student-led practice is highly valued in education policy and theory, classroom application lags behind these ideals. Recent scholarship illustrates a persistent gap between teachers' self-reported intentions and classroom practice. Despite teachers often reporting that they use active learning strategies and promote peer-to-peer interaction, classroom observations tend to reveal less-than-expected levels of student engagement and insufficient opportunities for collaboration due to rigid room configurations and pedagogies centered on the instructor (Odum, Meaney, & Knudson, 2021; Patrick, Howel, & Wischusen, 2016). Similarly, instructors claim to differentiate instruction for varying learning needs, but instruction is actually rooted in traditional lecturing with fewer uses of visual aids, activity-based instruction, or other variations (Du, Chaaban, Sabah, Al-Thani, & Wang, 2020; McKeachie, Pintrich, Lin, & Smith, 1986; Tomlinson, 2011). These findings highlight the challenges teachers face in implementing student-centered principles. Despite these challenges, teachers persist in encouraging learner autonomy through goal-setting, self-assessment, and metacognition development, and increasingly employ technology to enable personalized, competency-based learning via adaptive online software (Means, Toyama, Murphy, & Baki, 2013; Zimmerman, 2002). Collectively, these practices recognize the essential work of educators in realizing student-centered pedagogy, with an emphasis on the need for ongoing professional development and promoting classroom cultures that bridge the gap between ideal pedagogy and practice (Granström, Härma, & Kikas, 2023; Jõgi, Pakarinen, & Lerkkanen, 2023).

2.3. Authentic Learning

The debate on the relevance of educational practice in schools with respect to solving practical issues has raised the importance of genuine learning practices as an effective solution (Hui & Koplin, 2011). Authentic learning is a pedagogical methodology that involves the active involvement of students in the context of real-life problems, situations, or scenarios (Karakas-Özür and Duman (2019). The idea of learning through doing is exemplified by this approach, which occurs in real-life contexts (Paddison & Mortimer, 2016; Wald & Harland, 2017). Authentic learning is universally accepted as one of the most effective methods for preparing students to solve real-world issues (Brockett, 2015; Luo, Murray, & Crompton, 2017). Actual learning links class instruction and life successfully, connecting learning to practical issues as well as to application.

According to Pearce (2016), this process allows students' future problem-solving abilities to be cultivated. It also familiarizes them with handling complex issues through activities such as role-play, case studies, and active participation in virtual communities (Aina, Aboyeji, & Aboyeji, 2015). In the design of authentic learning experiences, priority should be placed on challenging, complex, and realistic tasks that allow students to examine problems from multiple perspectives and devise several solutions (Herrington, Oliver, & Reeves, 2003). In this approach, students work on projects and problems of real-world relevance and are encouraged to investigate and debate them in terms meaningful to their own lives (Iucu & Marin, 2014; Mims, 2003). Authentic learning aligns well with competency-based education, structuring content and assessment around clear competencies, practical knowledge, and skills (Oroszi, 2020) and emphasizing the capabilities required for practice in professions. The process begins with authentic tasks and continues with authentic activities and evaluations (Dilmaç & Dilmaç, 2014). Authentic learning has now become exceedingly prevalent in current education as an effective means of constructing true and actual learning experiences.

According to recent studies, teachers are aware of the importance of authentic learning, but the application of authentic learning is often constrained by limited resources, rigid curricula, and insufficient specific training (Aktepe, Behriz, & Bulut, 2025). Empirical data have revealed that providing students with a chance to practice authentic learning activities increases their likelihood of demonstrating higher levels of engagement, improved problem-solving skills, and more developed critical-thinking skills (Aynas & Aslan, 2021). The use of technological interventions, such as virtual reality and fully immersive digital spaces, has been reported to facilitate more authentic learning by offering interactive, real-life experiences, leading to enhanced understanding (Theelen, van den Beemt,

& Brok, 2022). However, these benefits are not yet fully realized, with most teachers still facing barriers to authentic learning practices, such as limited teaching time, curriculum demands, and inadequate professional development opportunities (Engström & Lennholm, 2025). Altogether, these results highlight the necessity of continuous professionalism, a strong institutional support system, and a curriculum that is sensitive to authentic learning. These actions will enable teachers to effectively address the gap between real-life and classroom learning and to apply authentic learning in the classroom.

2.4. Authentic Assessment

Authentic assessment has emerged as a pillar of modern education, especially in competency-based education, because it focuses on practical performance and increasingly involves learners in the educational process. Authentic assessment is different from conventional assessment tests because it assesses the ability of students to use their competencies in real-life applications rather than relying on rote memorization and standardized testing approaches (Wiggins, 1990). Teachers implement authentic assessment by designing performance-based activities, using multiple methods of assessment, and giving students the opportunity to demonstrate mastery of the skill before progressing (Gulikers, Bastiaens, & Kirschner, 2007). Furthermore, authentic assessment closely aligns with the principle of formative assessment, as it allows a teacher to offer continuous and constructive feedback that helps learners actively manage and control their learning processes (Black & Wiliam, 2009). The implementation should be effective, which means that the teacher must articulate both lesson goals and learning outcomes so that students can understand the learning objectives and the artifacts they should provide to demonstrate mastery of competency (Clarke, 2008, as cited in Kanjee (2020)).

Recent research points to the possibilities and obstacles of authentic assessment in a classroom. Alfiani and Wijayati (2022) discovered that despite the understanding of the importance of authentic assessment that includes real-life problems, teachers cannot translate their knowledge into practice due to curriculum limitations, inadequate resources, and insufficient training. Likewise, according to Burgess, van Diggele, Roberts, and Mellis (2020), although feedback is crucial, students often receive feedback that is too general, which makes it less effective in closing the gap between actual performance and desired performance. As Mohamed and Lebar (2017) point out, authentic assessment becomes essential when it is necessary to monitor students' real-world skills, but it is not always possible to implement it in education. According to research conducted by James and Casidy (2018), authentic assessments encourage students to think about future scenarios, which helps them learn more effectively than assessments focused solely on memorization. Moreover, Dawson, Carless, and Lee (2021) established that competency-specific and competency-focused feedback provided by teachers significantly contributes to skill development and overall academic gains of students. All these results highlight the importance of continuous professional growth, institutional support, and flexible curricular designs. Such support helps teachers to apply authentic learning practices effectively and bridge the gap between classroom teaching and real-world applications.

3. Materials and Methods

3.1. Research Design

This study employs a concurrent embedded mixed methods design in which the quantitative (QUAN) and qualitative (qual) components are conducted simultaneously to examine the application of a competency-based approach in teaching and learning in middle schools in Addis Ababa. Questionnaires are employed as the main data gathering instrument, and classroom observations are used as a supplementary data collection instrument.

Population, sample, and sampling technique: The target population of the study comprised middle school teachers and students in Addis Ababa. A multistage sampling technique was employed, involving five stages. First, five sub-cities were selected from a total of eleven sub-cities using simple random sampling. Second, ten public schools, two from each selected sub-city, were chosen using simple random sampling. The schools included in the study were: Misrak No. 1, Misrak No. 2, Tesfa Kokob, Karamara, Dagmawi Minilik, Meskerem, Yeshi Fana, Aste Tewodros, Lielt Zenebwork Metasebya, and Yeka Terara. Third, a total of 384 teachers and 384 students (198 in Grade 7 and 186 in Grade 8) were selected using systematic random sampling to complete the questionnaire on teachers' classroom practices. The sample size was determined by Yemane's formula. Fourth, two schools were randomly selected from the ten sampled schools for classroom observations. Fifth, four teachers (two from Grade 7 and two from Grade 8) were selected using stratified random sampling for classroom observation.

3.2. Data Collection Instruments

Questionnaire and classroom observation were employed to collect relevant data. The questionnaire was a five-point Likert-type scale and included both open- and close-ended items. A questionnaire was chosen because it is easy to administer, allows respondents to complete it quickly, provides greater anonymity, which can enhance the likelihood of obtaining accurate information, and is convenient to handle during the data collection process (Kumar, 2019). Two separate questionnaires were developed: one for teachers and one for students. Each questionnaire was distributed to its respective group, and data were collected from participants accordingly.

Moreover, the observation checklist was employed to gather information on the competency-based approach implementation. The classroom observation was especially relevant to the study since the teaching-learning process was the focus of the direct observation of instructional practices. The school principals were initially contacted and asked for permission to conduct observations. The four teachers involved were then informed about the study and the conditions of their participation, and they provided consent. The observations were conducted at mutually convenient times for both the researcher and the teachers. Throughout the sessions, the researcher sat at the back of the classroom to ensure that he did not disrupt the teaching and made detailed field notes regarding the situation in the classroom, the teacher, the behavior of pupils, and classroom interaction.

After every observation, field notes were expanded into detailed observation records documenting instructional processes, classroom activities, and teacher-student interactions. These were made in order to triangulate the data in the questionnaires. The comparison of classroom observation outcomes with the responses of teachers and students

in the questionnaires helped the study to confirm the reported practices with what transpired in the classroom, which offered a more precise picture of the implementation of competency-based approaches.

3.3. Validity and Reliability

The questionnaire and observation checklist were developed after a thorough examination of the relevant literature and were later supported by research and language experts to guarantee content, construct, and face validity. Professional comments were included to make the items more understandable, concise, and reflective of the investigation objectives. Instrument reliability was further determined in a pilot study conducted in five middle schools in Addis Ababa. The questionnaire was found to have high internal consistency, with a reliability coefficient of 0.84 established through Cronbach's alpha. Such pilot testing and expert validation ensured that the tools were reliable and valid for gathering relevant and meaningful data about classroom teaching practices of teachers.

3.4. Methods of Data Analysis

The quantitative data collected through the questionnaire were analyzed using descriptive statistics, specifically the mean, and inferential statistics, such as the t-test. The analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software, version 24. For the qualitative data obtained from classroom observations, a thematic analysis was performed following the six-stage framework proposed by Braun and Clarke (2006). These stages include: (1) familiarization with the data, (2) generation of initial codes, (3) identification of themes, (4) review of themes, (5) defining and naming themes, and (6) producing the final report. To enhance the validity and reliability of the findings, triangulation of the quantitative (QUAN) and qualitative (qual) data was carried out during the analysis stage. This approach facilitated the integration and comparison of results from both data sources, thereby strengthening the overall conclusions of the study.

Table 1. Teachers' and students' views regarding the practice of a student-centered approach.

No.	Statements	Teachers	Students	t	df	p
		M	M			
1	The teacher encourages students to take an active role in their learning.	4.12	2.13			
2	The teacher supports students to interact with one another while they learn in the classroom.	3.46	2.34			
3	The teacher adjusts their teaching methods and materials to match students' learning styles and pace.	2.35	2.54			.
4	The teacher helps students to set their learning goals.	2.29	2.50			
5	The teacher spends enough time with me to help me do well.	2.49	2.34			
	Grand mean	2.94	2.37	9.92	641	0.000

4. Result

4.1. Application of Student-Centered Approach

The results in Table 1 revealed that respondents acknowledged that teachers encourage students to take an active role in their learning, with a mean score of (M=4.12) for teachers and (M=2.13) for students. Teachers perceived themselves as encouraging students to take an active role in their learning. However, students reported that they were not fully engaged in the learning process. Respondents appreciated teachers' support for interaction among students in the classroom, with a mean score (M=3.46) for teachers and a mean score (M=2.34) for students. This indicates that teachers perceived themselves as supporting students to interact with each other regularly; however, students disagreed with this idea. Students also acknowledged that teachers adjust their teaching methods and materials to match students' learning styles and pace, with a mean score (M=2.35) for teachers and a mean score (M=2.54) for students. This indicates that the perceived efforts of teachers, as reported by both teachers and students, showed a low level of adjustment in teaching methods and materials to match students' learning pace and learning styles.

Finally, respondents realize that teachers support students in setting their learning goals, with mean scores (M=2.29) for teachers and (M=2.50) for students. This indicates that the level of support was low. Furthermore, respondents agree that teachers spend enough time with each student to help them succeed, with mean scores (M=2.49) for teachers and (M=2.34) for students. This indicates that teachers were not spending enough time with each student to help them succeed.

Moreover, to assess the practice of the student-centered approach in the classroom, an independent sample t-test was conducted. The result reveals that the grand mean for teachers was (M=2.94), while for students it was (M=2.61), and the Levene's t-test result ($p=0.000$, $df=641$, $p<0.005$) demonstrates a significant difference between the responses of teachers and students regarding the perceived application of the student-centered approach. This indicates that the practice of a student-centered approach in the classroom was moderately low.

To gain in-depth insights into the application of the competency-based approach, the researcher employed classroom observation to assess the application of the student-centered approach. The classroom observation revealed that the classroom was organized in a conventional layout, with desks arranged in rows facing the blackboard to direct students' attention forward. The teacher delivered lectures from the front and provided direct explanations near the blackboard. The teacher was not using visual aids or hands-on activities when necessary, which made it difficult for students with different learning styles to grasp the concepts effectively. Some students remained attentive, taking notes; however, the teacher rarely asked questions. Only a few students participated in the whole-group question-and-answer sessions.

Teachers were observed to dominate the teaching and learning process through traditional chalk-and-talk methods, resulting in a one-way communication flow from teacher to student. The teacher gave a chance to ask and answer questions to those who raised their hands and ignored the passive ones. The teacher was not encouraging passive students to participate in the teaching and learning process.

Table 2. Teachers' and students' views regarding the application of authentic learning and connecting lessons to the real world.

No.	Statements	Teachers	Students	t	df	p
		M	M			
1	The teacher explains the usefulness of the competency/objective to the students.	4.22	2.46			
2	The teacher uses appropriate examples and real objects to help students understand concepts of the topic.	3.02	2.72			
3	The teacher encourages the students to find appropriate solutions to the problems that confront them in real-life situations.	2.44	2.69			
4	The teacher connects the lesson to real-world applications.	2.46	2.41			
	Group mean	3.04	2.85	4.50	649	0.000

4.2. Application of Authentic Learning/ Relating Lesson to Real World

As indicated in Table 2, respondents recognize that the teacher explains the usefulness of the competency to the students, with a mean score (M=4.22) for teachers, and a mean score (M=2.46) for students. This indicates that while teachers believe they are providing sufficient explanations, students disagree with this idea. Respondents acknowledge that teachers use appropriate examples and real objects to help students understand concepts of the topic, with a mean score (M=3.02) for teachers and a mean score (M=2.72) for students. This shows that while teachers perceive themselves as frequently using appropriate examples and real objects, students' feedback revealed that teachers were only practicing these techniques occasionally.

They also recognize that teachers encourage students to find appropriate solutions to the problems that confront them in the real world, with a mean score (M=2.44) for teachers and a mean score (M=2.69) for students. This indicates that teachers were not properly encouraging students to find appropriate solutions to the problems they face in the real world. They also agree that the teacher connects the lesson to real-world applications, with a mean score (M=2.46) for teachers and a mean score (M=2.41) for students. This indicates that lessons were not effectively connected to real-world applications.

To examine the application of the lesson to real-world context through authentic learning, an independent sample t-test was conducted. The results reveal that the mean value for teachers was (M=3.04) and the mean value for students was (M=2.85). This indicates that the practice of relating the lesson to real-world applications using authentic learning occurred at some point. It is reasonable to conclude this because Levene's t-test at (p=0.000, df=649) and p<0.005), revealed that there is significant difference between the response of the teachers and students.

In addition to the survey, classroom observation was conducted to examine the application of authentic learning, specifically the extent to which lessons were related to real-world contexts. The results showed that the teacher directly began the daily lesson without explaining the relevance or importance of the lesson to the students' lives. During the explanation, the teacher used a few hypothetical examples. However, the teacher did not use real objects to help students grasp key concepts and failed to create an environment where learners could identify, analyze, and propose solutions to real-world problems. Students were not engaged in active problem-solving activities, and the discussions were superficial. Furthermore, the teacher failed to connect the lessons to real-world situations by confronting learners with real-world cases.

Table 3. Teachers' and students' views regarding the application of authentic assessment.

No.	Statements	Teachers	Students	t	df	p
		M	M			
1	The teacher communicates lesson objective and assessment criteria clearly to students	2.40	2.54			
2	The teacher uses various forms of formative assessment techniques (e.g., case studies, projects, assignments, etc.) to provide students with multiple opportunities to master competencies outlined in the curriculum.	3.08	2.39			
3	The teacher uses authentic assessment to help students master competencies outlined in the curriculum.	2.52	2.50			
4	The teacher requires students to demonstrate mastery of each competency before progressing to the next one.	2.87	2.48			
5	The teacher provides timely feedback to students	4.12	3.75			
	Group mean	3.00	2.84	4.57	658	0.000

4.3. Application of Authentic Assessment

The result in Table 3 reveals that teachers and students acknowledge that the school teachers communicate lesson objectives and assessment criteria clearly to students, with mean scores (M=2.40) for teachers and (M=2.54) for students. This suggests that teachers rarely communicate lesson objectives and assessment criteria clearly to students.

Respondents recognize that teachers use various forms of formative assessment techniques to provide students with multiple opportunities to master competencies outlined in the curriculum, with a mean score (M=3.08) for teachers and a mean score (M=2.39) for students. This indicates that, although teachers perceive themselves as using various forms of formative assessment techniques, students' responses reveal that teachers are moderately employing them.

They also agree that teachers use authentic assessment to help students master competencies outlined in the curriculum, with a mean score (M=2.52) for teachers and a mean score (M=2.50) for students. This indicates that teachers seldom use authentic assessment. Respondents appreciate that teachers require students to demonstrate mastery of each competency before progressing to the next one, with a mean score (M=2.87) for teachers and a mean score (M=2.48) for students. This suggests that the requirement for students to demonstrate mastery of each competency before progressing is practiced intermittently. Finally, the results in table 3 reveal that teachers provide

timely feedback to students, with a mean score (M=4.12) for teachers and a mean score (M=3.75) for students. This indicates that teachers provide feedback regularly.

To examine the practice of applying authentic assessment, an independent sample t-test analysis was conducted. The results reveal that the mean score for teachers was (M=3.00), and the mean score for students was (M=2.84). This indicates that the practice of authentic assessment was moderately low. It is reasonable to conclude on this because the Levene's t-test at (p=0.000, df=658 and p<0.005), revealed that there is significant difference between the response of the teachers and students.

To support or reject the result from the quantitative data, classroom observation was also conducted. The results of the classroom observation show that the teacher starts the daily lesson by connecting it to the previous one. The teacher continues to clarify the daily lesson but does not clearly inform the students of the lesson objectives or assessment criteria. Student performance was assessed primarily through questions and answers, limiting students' opportunities to demonstrate their proficiency in various ways. Moreover, the feedback given was limited, general, vague, and uniform, focusing on a broad group rather than highlighting each student's specific strengths or weaknesses.

5. Discussion and Conclusion

5.1. Discussion

Student-Centered: The general objective of this study was to assess the application of the competency-based approach in middle schools in Addis Ababa. This research had three specific objectives. Regarding the first question, the teacher encouraged students to participate in the learning process. The study results showed that, while teachers believed they were motivating students, the students' responses and classroom observations indicated that such encouragement was rarely given and not commonly practiced. These findings align with the research conducted by Melaku, Ali, and Tesfaye (2025) and Miller and Metz (2014), who indicated that teachers claimed they consistently employed active learning techniques and felt very confident that they were engaging students. However, they noted that the level of engagement students actually experienced was considerably lower.

Regarding the second issue, which examines whether teachers support students to interact with one another during classroom learning, the results indicate that teachers believe they provide opportunities for students to interact with one another; both student responses and classroom observations reveal that teachers rarely promote student engagement through paired activities. Instead, teachers primarily focus on explaining concepts and ideas during the lesson. These findings are consistent with previous research, which indicates that although teachers perceive themselves as frequently offering chances for peer interactions through group work and peer-to-peer tasks, both student surveys and classroom observations show that these interactions are significantly restricted mainly because of rigid classroom layouts and a predominantly lecture-based approach (Odum et al., 2021; Patrick et al., 2016).

In relation to teachers' efforts to adjust their teaching methods and materials to match students' learning styles and pace, the results indicated that teachers primarily delivered lectures from the front of the classroom and provided direct explanations near the blackboard. The teachers did not use visual aids or hands-on activities appropriately. This implies that the teachers' efforts to modify teaching methods and materials to accommodate different learning styles and paces were limited, making it difficult for students with diverse learning preferences to grasp concepts effectively. This finding aligns with research by Du et al. (2020) and Tomlinson (2011). In their studies, while many teachers claimed to try to adapt their teaching to meet various learning styles, both self-reports from teachers and students and classroom observations indicated that instruction was mainly conducted through traditional lectures, with little use of varied strategies such as visual aids or hands-on activities to engage a diverse range of learners.

The fourth and fifth issues concern individualized learning; the teacher helps students set their learning goals and spends enough time with each student to support their success. The results reveal that the teacher rarely assists students in setting their learning goals and provides little one-on-one guidance, focusing mainly on lecturing and interacting only with students who raise their hands, while neglecting passive learners. This implies that the teacher seldom supports students' learning success through individualized learning. This aligns with the research findings of Ababo and Animaw (2024) and McKeachie et al. (1986). Although teachers understand the necessity of assisting students in setting personal learning goals, classroom observations indicate that instruction remains largely teacher-centered, providing limited opportunities for student autonomy in their learning.

To further assess the practice of the student-centered approach, an independent-sample t-test was conducted. The results reveal that the group mean value for teachers was (M=2.94), and the mean value for students was (M=2.37). Classroom observations indicated a predominantly teacher-centered environment. This suggests that the implementation of the student-centered approach in the classroom was relatively low. It is reasonable to conclude this because Levene's t-test at (p=0.000, df=641, p<0.005), revealed that there is significant difference between the response of the teachers and students. This aligns with the result of the study conducted by Tang (2023). The study indicates that a student-centered approach is rarely practiced, with students having minimal responsibility for guiding their own learning and constructing their own knowledge.

Authentic Learning: The second objective was to examine the extent to which teachers use authentic learning to relate learning to real-world situations, focusing on four specific issues. In line with the first issue of the second objective, the teacher explains the usefulness of the competency/objective to the students. The results highlight that teachers perceived they were communicating lesson objectives and assessment criteria clearly to students. However, students perceived that teachers rarely communicated lesson objectives and assessment criteria clearly. Moreover, the observations showed that teachers often began lessons without clarifying their relevance or purpose, leaving students unaware of how the competency was useful to their lives. This indicates that while teachers believed they were effectively communicating the relevance of the lessons, they did not actually implement it in practice. This aligns with the research findings of Graham, Van Staden, and Dzamesi (2021), who highlight that teachers often lack the skills to implement assessment-for-learning strategies, including effective communication of the relevance of the lesson to students. This gap is critical to address, as Reed (2012) demonstrated that when objectives are clearly clarified and connected to real-world relevance, engagement and critical thinking improve significantly.

Regarding the second issue, the teacher uses appropriate examples and real objects to help students understand the concepts of the topic. The results show that both groups of respondents agreed that it was moderately implemented, with a slight difference. Additionally, the results of classroom observations indicate that it was moderately implemented; it also revealed that the examples provided were hypothetical, and the teacher did not use real objects to help learners grasp the concepts of the lesson. This result is consistent with applications (Hattie, 2008) comprehensive synthesis of educational research, Visible Learning (2008), which found that teachers often rely on abstract examples when teaching mathematics, despite curricular recommendations to incorporate real-world applications (Hattie, 2008). Research suggests that teachers incorporating real-world examples and tangible objects into lessons often lead to increased student engagement, which in turn enhances information retention and deepens understanding (Mebert et al., 2020).

Regarding the third issue, the study examined teachers' efforts to encourage students to find appropriate solutions to problems they face in real-life situations; interestingly, students rated problem-solving encouragement slightly higher than teachers did, and classroom observations showed that discussions remained superficial, with no emphasis on analyzing or addressing real problems. This suggests that although respondents recognize that teachers rarely encourage students to find solutions to real-life problems, in practice, teachers fail to do so. This aligns with the research findings of Yan et al. (2021). The study found that despite teachers' positive attitudes toward problem-solving strategies, actual classroom practices often do not align with these intentions due to various constraints, leading to superficial engagement rather than deep problem-solving.

In the fourth issue, teachers' attempts to relate the lesson to real-world applications received the lowest ratings from both groups. Similarly, qualitative data indicated that the teacher did not involve students in active problem-solving sessions, and the discussions were superficial. This means that the teachers did not implement authentic learning concepts, especially in the connection between lessons and real-life scenarios. This result is consistent with the findings of Urias (2022). The observation of the study points out that although teachers are aware of the importance of relating lessons to real-life scenarios, it is the practical aspect that fails. The gap between classroom practice and educational goals may be caused by curriculum demands and scarcity of resources. Furthermore, it has been demonstrated that shallow classroom discussions lacking depth and real-world relevance may impede the process of critical thinking and problem solving. To develop these competencies, involving students in real-life problem-solving tasks that are meaningful is necessary (Hefel, 2022). To examine the application of the lesson to the real world using authentic learning, an independent sample t-test was conducted. The result reveals that the mean value for teachers was (M=3.04) and the mean value for students was (M=2.85). This indicates that the practice of relating the lesson to real-world application occurred sometimes. In the same vein, the qualitative data showed that the teacher did not engage students in active problem-solving activities using authentic learning. This indicates that the teacher rarely implements authentic learning to connect lessons to real-world application. It is reasonable to conclude this because the Levene's t-test at ($p=0.000$, $df=649$ and $p<0.005$), revealed that there is a significant difference between the responses of teachers and students.

The results align with the research findings by Yalçin, Yalçin, Akar, and Sagirli (2017). The study indicates that while teachers recognize the importance of connecting lessons to real-life contexts, effectively implementing this remains a challenge. However, this contradicts the idea that teachers should apply authentic learning, in which students engage with real-world problems or projects that hold practical value. They are encouraged to examine and discuss these challenges in meaningful ways that are applicable to their own lives (Mims (2003); Carlson, 2002, as cited in Adeniyi (2022); Iucu and Marin (2014) & Mims (2003)

Authentic Assessment: The third objective was to assess the extent to which teachers' use of authentic assessment to check mastery of competencies addressed five issues. In line with the first issue related to the third objective, the teacher communicated lesson objectives and assessment criteria clearly to students. The results of the study indicate that teachers rarely communicated lesson objectives and assessment criteria clearly to students. Clearly defined lesson objectives help students understand course activities and improve assessment performance. However, the study conducted by Orr, Csikari, Freeman, and Rodriguez (2022) highlights that, in practice, this clarity is frequently lacking, resulting in a gap between instructional objectives and student understanding.

Regarding the use of formative assessments, the results of the study indicate that although teachers perceived themselves as employing various forms of formative assessment techniques, students' responses and classroom observations revealed that teachers were moderately implementing them. Moreover, the third and fourth issues assess the extent to which teachers use formative assessment, specifically authentic assessment, to help students master the competencies outlined in the curriculum before progressing to the next topic. The study's findings show that although teachers perceived themselves as using various forms of formative assessment techniques such as authentic assessment, students' responses and classroom observations suggest that assessments were limited to questions and answers, offering few opportunities for students to demonstrate mastery of competencies in diverse ways. This indicates that teachers rarely used authentic assessment, and requiring students to demonstrate competency mastery before progressing occurred only occasionally. These results align with previous research findings. For instance, Alfiani and Wijayati (2022) found that although authentic assessments, which involve real-world challenges, are widely acknowledged for their benefits, their practical application remains limited. Teachers often struggle to design tasks that effectively assess students' mastery, primarily due to challenges such as curriculum constraints and insufficient resources.

The results of the fifth issue indicate that teachers do give feedback to their students timely and consistently. Nonetheless, the qualitative data demonstrates that this feedback is usually short, broad, inaccurate, and generic, and tends to cover the overall group rather than each student's strengths and weaknesses. This implies that although teachers deliver timely feedback promptly, its lack of detail and individualization may limit its effectiveness in promoting student learning and development. These findings are consistent with the study conducted by Burgess et al. (2020), who also emphasize that, even though feedback is a crucial element of the learning process, it is quite frequent that students believe they receive too little and too inefficient feedback. This deficiency could result from the fact that feedback is so broad or needs to be applied to the needs of specific individuals that it cannot assist students in narrowing the gap between their current performance and the desired one. An independent sample t-test was conducted to evaluate how authentic assessment practices were applied.

To examine the practice of application of authentic assessment, an independent sample t-test was conducted to evaluate how authentic assessment practices were applied. The results indicated that the mean score for teachers was (M=3.00), while for students, it was (M=2.84), suggesting that the use of authentic assessment is moderately low. Moreover, it was also seen through classroom observations that the teacher was not properly applying authentic assessment, since he or she failed to state the lesson objectives and criteria. Rather, grading was largely based on question-and-answer techniques, limiting the students to show their mastery in a variety of ways. Furthermore, the feedback was generic and did not support the customized needs and strengths of individual students, which undermines the principle of authentic learning. This implies that authentic assessment practices were used infrequently. It is reasonable to conclude this because the Levene's t-test at ($p=0.000$, $df= 658$ and $p<0.005$), revealed that there is a significant difference between the responses of teachers and students, which is not compatible with the idea that teachers should use authentic assessment to evaluate students' abilities in real-life scenarios and compare their skills with those needed in the real world (Mohamed & Lebar, 2017; Olfos & Zulantay, 2007). James and Casidy (2018) argue that the method is more effective than the one that only involves memorization at the expense of engaging students in real-life situations. Moreover, authentic assessment is a tool that evaluates the development of students in terms of mastering certain competencies and provides meaningful feedback. It is essential to their learning process because it allows students to refine their abilities and advance their academic performance in general (Dawson et al., 2021).

5.2. Conclusion

The study examined teachers' application of the competency-based approach in Addis Ababa middle schools, specifically in terms of the student-centered approach, authentic learning, and authentic assessment. A wide gap was identified between teachers' perceived practices and their actual classroom practices with regard to each of these three dimensions. Although teachers claimed that they were using a student-centered approach, classroom observations and students' reports indicated otherwise. Most instruction remained teacher-centered, and students had limited opportunities to interact with peers during instruction. Additionally, teachers did not differentiate instruction to accommodate individual differences. Authentic learning practices were found to be largely absent in the classrooms. For example, lesson objectives were not clearly explained to students, examples used were not connected to students' real-life experiences, and students had limited opportunities to engage in problem-solving that reflected real-life contexts. Similarly, teachers' use of authentic assessment to evaluate students' knowledge and skills was not consistent with stated beliefs. Although teachers reported that they were using multiple types of assessments and providing students with frequent feedback, there was a strong reliance on question-and-answer methods, and the feedback provided to students was typically general rather than specific to the individual student, which limited opportunities for students to demonstrate mastery of competencies in diverse and meaningful ways. Overall, the effective implementation of competency-based approaches in middle schools in Addis Ababa appears to be limited. Teachers clearly require targeted professional development, accompanied by ongoing support and continuous supervision to bridge the gap between the principles of competency-based education and the realities of classroom practice.

The research contributes to the theoretical understanding of competency-based education by demonstrating the discrepancy between teachers' assumptions and the actual situation in teaching. It underscores the need for teachers to implement student-centered best practices that enhance active learning and greater participation of students. The study also adds to the existing body of literature on the student-centered approach, authentic learning, and authentic assessment by highlighting the challenges in applying these practices in real-world classroom contexts. Furthermore, it builds on the currently available literature on learning by emphasizing the importance of aligning teaching approaches with students' needs and learning styles, highlighting the necessity of adapting adaptive and responsive methodologies to foster greater student engagement and capacity development.

The research holds some significant implications for practice in the context of introducing competency-based education in Ethiopia. By showing incongruence between how teachers believe they are teaching and what the classroom environment is, the study underscores the need for more student-centered instruction, authentic learning, and authentic assessment. The results seem to highlight the need to establish targeted professional development programs that would empower teachers in terms of their specific approaches to designing real-life learning activities, promoting active student engagement, and providing individualized feedback. Additionally, the research provides some recommendations to curriculum developers and policymakers on how teaching practices and assessment tools can be updated to reflect CBE principles more closely. Overall, the findings can help middle schools in Ethiopia create learning conditions that foster the competencies, independence, and authenticity of students. These enhancements can eventually contribute to the successful implementation of CBE.

6. Limitation

The study has several limitations. First, the sampling may have introduced bias, as it included only five sub-cities and public schools in Addis Ababa, which limits the generalizability of the sample. In addition, observer bias could have an effect on interpreting classroom dynamics, and a single observation of each teacher may fail to measure typical teaching practice. Data analysis methods, particularly the use of means and t-tests, could miss variations and assume normal distribution, which may not be the case for the data. Finally, the cross-sectional design limits the understanding of the transformation of student experience and teaching practice over time, and there is a requirement for longitudinal research in examining long-term impacts.

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